

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 10 canceled.

11. (currently amended) The cementitious composition of claim ~~5~~ 123 wherein said ~~pozzolonic material~~ fly ash comprises about ~~35~~ 20% by weight amorphous silica.

12. canceled

13. canceled

14. canceled

15. (currently amended) The cementitious composition of claim ~~2~~ 123 ~~further comprising wherein said fly ash comprises~~ Type F fly ash.

16. (original) The cementitious composition of claim 15 wherein said catalyst comprises from about 0.1% to about 10% by weight zeolite.

17. (original) The cementitious composition of claim 15 wherein said catalyst comprises from about 2% to about 4% by weight zeolite.

18. (currently amended) The cementitious composition of claim ~~2~~ 123 ~~further comprising wherein said fly ash comprises~~ Type C fly ash.

19. (original) The cementitious composition of claim 18 wherein said catalyst comprises from about 0.1% to about 10% by weight zeolite.

20. (original) The cementitious composition of claim 18 wherein said catalyst comprises from about 0.5% to about 1.5% by weight zeolite.

21. (currently amended) The cementitious composition of claim + 123 wherein said zeolite comprises particles having an average diameter of from about 0.1 microns to about 10 microns.

22. (currently amended) The cementitious composition of claim + 123 wherein said zeolite comprises particles having an average diameter of from about 2 microns to about 7 microns.

23. (currently amended) The cementitious composition of claim + 123 wherein said zeolite comprises particles having an average diameter of about 5 microns.

24. (currently amended) The cementitious composition of claim + 123 wherein said zeolite comprises pores having an average diameter of from about 2 Å to about 8 Å.

25. (currently amended) The cementitious composition of claim + 123 wherein said zeolite comprises pores having an average diameter of from about 3 Å to about 5 Å.

26. (currently amended) The cementitious composition of claim + 123 wherein said zeolite comprises pores having an average diameter of about 4.2 Å.

Claims 27-40 canceled.

41. (currently amended) The cementitious composition of claim + 123 wherein the catalyst is a naturally-occurring zeolite selected from the group consisting of analcime, chabazite, gmelinite, mordenite, natrolite, faujasite, phillipsite, sodalite, nepheline, scapolite, cancrinite, erionite, clinoptilolite, and combinations thereof.

Claims 42-47 canceled.

48. (currently amended) The cementitious composition of claim + 123 further comprising an expanded filler selected from the group consisting essentially of hollow glass cenospheres, glass or polymer microspheres, vermiculite, expanded perlite, expanded polystyrene, expanded shale or clay, synthetic lightweight aggregate, and combinations thereof.

Claims 49-52 canceled.

53. (currently amended) The cementitious composition of claim ~~41~~23 further comprising a ~~third amount of a~~ an amount of a water-reducing component effective to decrease by about 10% or more the amount of water that must be added to said cementitious composition to achieve a workable consistency.

Claims 54-57 canceled.

58. (original) The cementitious composition of claim 53 wherein the water-reducing component is selected from the group consisting of calcium or alkali salts of sulfonated lignin, hydroxylated polymers and copolymers, salts of hydroxy carboxylic acids, salts of condensation polymers of melamine urea and melamine formaldehyde, salts of condensation polymers of sulfonated naphthalene formaldehyde, formaldehyde/urea polymers, carboxylated polyethers, sulfonated condensation copolymers of formaldehyde and ketones, and combinations thereof.

59. (original) The cementitious composition of claim 58 wherein ~~said~~ the water-reducing component is selected from the group consisting of sodium citrate and sodium gluconate.

Claims 60-63 canceled.

64. (currently amended) The cementitious composition of claim ~~53~~ 58 further comprising a ~~fourth amount of a~~ viscosity modifier effective to reduce segregation.

65. (currently amended) The cementitious composition of claim ~~54~~ 59 further comprising a ~~fourth amount of a~~ viscosity modifier effective to reduce segregation.

66. canceled

67. canceled

68. canceled

69. (currently amended) The cementitious composition of claim 58 further comprising a fourth amount of a viscosity modifier effective to reduce segregation.

70. canceled

71. (original) The cementitious composition of claim 64 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

72. (original) The cementitious composition of claim 65 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

73. canceled

74. canceled

75. canceled

76. (currently amended) The cementitious composition of claim 69 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

77. canceled

78. (currently amended) A cementitious composition—~~comprising~~ consisting essentially of:

~~from about 10% to about 95% about 80% or more by weight of a inorganic material~~

~~comprising about 30% by weight or more amorphous silica, the material based on~~

the total weight % of the cementitious composition, the inorganic material selected from the group consisting of fly ash, silica fume, diatomaceous earth, calcined or uncalcined diatomite, pozzolonic clays, calcined or uncalcined volcanic ash, bagasse ash, rice hull ash, and metakaolin,
~~from about 10% to about 85% by weight of a calcium-containing material~~ Ordinary Portland cement based on the total weight % of the cementitious composition, and
~~from about 0.1 to about 45% by weight of an~~ a quantity of one or more alkali-containing zeolite catalyst providing sufficient alkali metal to catalyze the pozzolonic reaction between the Ordinary Portland cement and the inorganic material.

79. (original) The cementitious composition of claim 78 further comprising a water-reducing component effective to decrease by about 10% or more the amount of water that must be added to said cementitious composition to achieve a workable consistency.

80. (original) The cementitious composition of claim 79 wherein the water-reducing component is selected from the group consisting of calcium or alkali salts of sulfonated lignin, hydroxylated polymers and copolymers, salts of hydroxy carboxylic acids, salts of condensation polymers of melamine urea and melamine formaldehyde, salts of condensation polymers of sulfonated naphthalene formaldehyde, formaldehyde/urea polymers, carboxylated polyethers, sulfonated condensation copolymers of formaldehyde and ketones, and combinations thereof.

81. (original) The cementitious composition of claim 78 further comprising a viscosity modifier effective to reduce segregation.

82. (original) The cementitious composition of claim 79 further comprising a viscosity modifier effective to reduce segregation.

83. (original) The cementitious composition of claim 80 further comprising a viscosity modifier effective to reduce segregation.

84. (original) The cementitious composition of claim 81 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

85. (original) The cementitious composition of claim 82 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

86. (original) The cementitious composition of claim 83 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

87. (currently amended) The cementitious composition of claim ~~1~~ 123 wherein the strength of said ~~cement-product~~ cementitious composition at 28 days is greater than the strength of the same ~~cement-product~~ cementitious composition in the absence of said catalysts selected from the group consisting of zeolite, feldspathoid, and a combination thereof.

88. (currently amended) The cementitious composition of claim ~~2~~ 78 wherein the strength of said ~~cement-product~~ cementitious composition at 28 days is greater than the strength of the same ~~cement-product~~ cementitious composition in the absence of said catalysts selected from the group consisting of zeolite, feldspathoid, and a combination thereof.

Claims 89-98 canceled.

99. (currently amended) A cementitious product ~~comprising~~ consisting essentially of ~~cementitious components about 80% by weight one or more type F fly ash based on the total weight % of the cementitious product, about 10% by weight of Ordinary Portland cement based on the total weight % of the cementitious product, and from about 0.1% to about 10% by weight of a catalyst based on the total weight % of the cementitious product, the catalyst selected from the group consisting of alkali-containing zeolite, alkali-containing feldspathoid, and a combination thereof.~~

100. (original) The cementitious product of claim 99 further comprising a water-reducing component effective to decrease by about 10% or more the amount of water that must be added to said cementitious composition to achieve a workable consistency.

101. (original) The cementitious product of claim 100 wherein the water-reducing component is selected from the group consisting of calcium or alkali salts of sulfonated lignin, hydroxylated polymers and copolymers, salts of hydroxy carboxylic acids, salts of condensation polymers of melamine urea and melamine formaldehyde, salts of condensation polymers of sulfonated naphthalene formaldehyde, formaldehyde/urea polymers, carboxylated polyethers, sulfonated condensation copolymers of formaldehyde and ketones, and combinations thereof.

102. (original) The cementitious product of claim 99 further comprising a viscosity modifier effective to reduce segregation.

103. (original) The cementitious product of claim 100 further comprising a viscosity modifier effective to reduce segregation.

104. (original) The cementitious product of claim 101 further comprising a viscosity modifier effective to reduce segregation.

105. (original) The cementitious product of claim 102 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

106. (original) The cementitious product of claim 103 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

107. (original) The cementitious product of claim 104 wherein the viscosity modifier is selected from the group consisting of hydroxyethyl cellulose, guar gum, carageenan gum, various clays, salts of acrylic acid and acrylic acid copolymers, acrylamide polymers and copolymers of acrylamide.

108. (currently amended) A method of making a cementitious composition comprising mixing materials consisting essentially of a first quantity of about 80% or more by weight of one or more fly ash based on the total weight % of the cementitious composition ~~pozzolonic material,~~ a second quantity of ~~alkaline earth metal~~ Ordinary Portland cement, and ~~an amount of a third quantity of one or more catalyst~~ selected from the group consisting of ~~an alkali-containing zeolite, an alkali-containing feldspathoid, and combinations thereof,~~ to produce the cementitious composition, ~~the amount~~ third quantity of one or more catalyst providing sufficient alkali metal ~~being effective to catalyze the pozzolonic reaction between a majority of the pozzolonic material fly ash and the alkaline earth metal Ordinary Portland cement.~~

109. (original) The method of claim 108 wherein the pH of said pozzolonic reaction is from about 10 to about 14.

110. (original) The method of claim 108 wherein the pH of said pozzolonic reaction is from about 11 to about 14.

111. (original) The method of claim 108 wherein the pH of said pozzolonic reaction is about 12.

112. (original) The method of claim 108 comprising adding an amount of water to the cementitious composition effective to achieve a workable consistency.

113. (original) The method of claim 109 further comprising curing the cementitious composition to produce a cement product.

114. (currently amended) The method of claim 110 wherein the strength of the cement product at 28 days is greater than the strength of the same cement product in the absence of said ~~catalysts~~ catalyst selected from the group consisting of zeolite, feldspathoid, and a combination thereof.

115. (currently amended) A method of catalyzing a pozzolonic reaction comprising mixing materials consisting essentially of a first quantity of about 80% or more by weight of one or more fly ash based on the total weight % of the cementitious composition~~pozzolonic material~~ and a second quantity of ~~alkaline earth metal~~ Ordinary Portland cement with ~~an amount~~ a third quantity of ~~of one or more~~ catalyst selected from the group consisting of ~~an~~ an alkali-containing zeolite, an alkali-containing feldspathoid, and combinations thereof, ~~the amount~~ third quantity of one or more catalyst providing sufficient alkali metal being effective to catalyze the pozzolonic reaction between a majority of the ~~pozzolonic material~~ fly ash and the ~~alkaline earth metal~~ Ordinary Portland cement.

116. (currently amended) The method of claim 115 wherein the amount of the catalyst is effective to catalyze the pozzolonic reaction between substantially all of the ~~pozzolonic material fly ash and the alkaline earth metal~~ Ordinary Portland cement.

117. (original) The method of claim 115 further comprising adding an amount of a water-reducing component to the cementitious composition in an amount effective to decrease by about 10% or more the amount of water that must be added to said cementitious composition to achieve a workable consistency.

118. (original) The method of claim 116 further comprising adding an amount of a water-reducing component to the cementitious composition in an amount effective to decrease by about 10% or more the amount of water that must be added to said cementitious composition to achieve a workable consistency.

119. (original) The method of claim 115 further comprising adding an amount of a viscosity modifier to the cementitious composition effective to reduce segregation.

120. (original) The method of claim 116 further comprising adding an amount of a viscosity modifier to the cementitious composition effective to reduce segregation.

121. (original) The method of claim 117 further comprising adding an amount of a viscosity modifier to the cementitious composition effective to reduce segregation.

122. (original) The method of claim 118 further comprising adding an amount of a viscosity modifier to the cementitious composition effective to reduce segregation.

123. (new) A cementitious composition consisting essentially of:

about 80% or more by weight one or more fly ash based on the total weight % of the
cementitious composition;

one or more compounds comprising Ordinary Portland cement; and

a quantity of one or more catalyst selected from the group consisting of an alkali-containing zeolite, an alkali-containing feldspathoid, and combinations thereof, the quantity of one or more catalyst providing sufficient alkali metal to catalyze the pozzolonic reaction between the one or more compounds comprising Ordinary Portland cement and the fly ash.

124. (new) The cementitious composition of claim 123 comprising about 2% or more by weight of catalyst based on the total weight % of the cementitious composition.

125. (new) The cementitious composition of claim 123 comprising about 4% by weight or less of catalyst based on the total weight % of the cementitious composition.